

A NEW POROPHYLLUM (ASTERACEAE : TAGETEAE)  
FROM SOUTHCENTRAL MEXICO

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Recent collections by the present author from the state of Hidalgo, Toliman Canyon, near Zimapan, has revealed the following cliff-dwelling novelty.

Porophyllum zimapanum B.L. Turner, sp. nov.

A Porophyllum warnockii floribus glabris, corollae tubulis faucibusque aequalibus, achaeniis parvioribus fere glabris, pappis 3-4 mm longis, phyllariis ca. 9 mm long apicibus pubescentibus differt.

Suffruticose glabrous perennial herbs, 30-40 cm high, pendant from vertical bluffs. Stems bright green, wiry, 4-5 sulcate. Leaves mostly alternate, filiform, 3-5 cm long, glabrous, with 1-3 pustulate glands, 1-2 mm long, the larger mostly positioned 1-4 mm below the apex which, upon drying, causes the apex to recurve. Heads single, ca. 30-flowered, on somewhat recurved peduncles, 1-2 cm long. Involucre cylindric, ca. 30-flowered, glabrous except for the abruptly obtuse apices of each bract which bear a tuft of soft puberulent hairs; bracts 5, ca. 9 mm long, 1.5 mm wide, with 2 rows of 2-3 linear, orangish pustules. Receptacle hemispheric, glabrous, ca. 1.5 mm across. Corollas glabrous, pale yellow, ca. 5.5 mm long; tube 2.5-3.0 mm long, gradually merging into a narrowly funneliform throat, 2.5-3.0 mm long, the lobes 5, acute, 0.5-0.7 mm long. Achene body linear, ca. 5.5 mm long, black, very sparsely white-hispid, especially above; pappus of ca. 20 hispidulous setae 2-4 mm long.

TYPE : MEXICO. Hidalgo: exactly 10.5 mi W of Hotel Fundicion (in Zimapan) by dirt road to the very bottom of Barranca Toliman, then downstream to just before the barranca is at its narrowest. Plant found only upon vertical cliffs. 15 Mar 1983, B. L. Turner 15093 (holotype TEX; isotypes to be distributed).

Among the floral features the most remarkable is the tufted (pubescent) involucreal bracts, unknown among most Porophyllums of my acquaintance. The filiform leaves are also unique and differ from those of P. warnockii in possessing a large, linear, pustulate gland 2-4 mm below the apex, which upon drying causes the tip to recurve in the manner of a shepherd's cane. The comparable gland of P. warnockii, as noted by Johnson (1969), is

terminal and the leaves do not recurve dramatically at their apices. It should also be noted here that Johnson compares P. warnockii to P. filiforme, a species of northcentral Mexico with purple flowers and involucre, a species clearly remote from both P. warnockii and P. zimapanum.

Porophyllum zimapanum is, however, clearly related to P. warnockii. The latter is known only from the type collections (Mexico State, District Temascaltepec, Nanchititla, along cliffs, Hinton 8469) and it too has filiform leaves and is a local bluff-dwelling species. They differ in a number of characters including both floral and involucre features as follows:

<u>P. zimapanum</u>	<u>P. warnockii</u>
1. tube/throat ratio ca. 1:1	1. tube/throat ratio ca. 2:1
2. corolla ca. 5.5 mm long, glabrous	2. corolla ca. 7.0 mm long, hispidulous
3. achene body ca. 5.5 mm long	3. achene body ca. 8.0 mm long
4. pappus 3-4 mm long	4. pappus 6-8 mm long
5. involucre 9 mm long	5. involucre 12-14 mm long
6. phyllaries pubescent at apex	6. phyllaries glabrous

Porophyllum zimapanum occurs sporadically along the spectacular Barranca Toliman, along with several other cliff-dwelling endemics including Eupatorium karwinskianum and Polygala minutifolia Rose, the latter being, in habit, remarkably similar to Porophyllum zimapanum.

#### LITERATURE CITED

- Johnson, R. R. 1969. Monograph of the plant genus Porophyllum (Compositae:Helenieae). Univ. Kansas Sci. Bull. 47: 225-267.